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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,941	01/13/2004	Chiu K. Li	UTL 00354	3298

7590 03/31/2006

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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT PAPER NUMBER

2614

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/756,941

Applicant(s)

LI, CHIU K.

Examiner

Melur Ramakrishnaiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-12 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12, 14-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-6, 8, 10-12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (JP2003-032343) in view of Ohnsorge (US PAT: 5,485,504).

Regarding claim 1, Oda discloses a communication device comprising: housing (1, Drawing: 4) including a front surface, a first side surface, and a second side surface, the second side surface being situated to opposite the first side surface (see Drawing: 4), an antenna situated proximate the first side surface, a speaker (3a, Drawing: 4) situated proximate the second side surface, and a microphone (7a, Drawing: 4) situated proximate the second side surface (paragraph: 0021, and see abstract).

Regarding claim 8, Oda discloses a communication device comprising: a housing including a front surface, a first side surface, and a second side surface, the second side surface being situated opposite the first side surface, an antenna situated proximate the first side surface, a speaker (3a, Drawing: 4) opening defined proximate the second side surface, a microphone (7a, Drawing: 4) situated proximate the second side surface, a speaker (3a, Drawing: 4) situated within the housing to transmit acoustic signals via the speaker opening, and a microphone (7a, Drawing: 4) situated within the housing to receive acoustic signals via the microphone opening (paragraph: 0021, and see abstract).

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Oda differs from claims 1 and 8 in that he does not specifically teach the side surface being concave to generally follow contour of a user's face.

However, Ohnsorge discloses hand-held radio telephone which teaches the following: radio telephone surface that is concave and generally follow a contour of user's head (fig. 2, col. 2 lines 7-11).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: second side surface is concave to generally follow a contour of user's head as this arrangement would provide necessary shape to ensure good intelligibility of telephone communications as taught by Ohnsorge.

Regarding claims 2, 4-6, 10-12, Oda further teaches the following: first and second openings are defined proximate the second side surface, the speaker (3a, Drawing: 4) situated within the housing to transmit acoustic signals via the first opening, the microphone (7a, Drawing: 4) situated within the housing to receive signals via the second opening, a first dimension defines a width of the front surface and second defines a width of the second side surface, the second dimension being less than the first dimension, keypad (6, Drawing: 4) situated on the front surface, display device (2, Drawing: 4) situated on the front surface (Drawing: 4, (paragraph: 0021, and see abstract).

3. Claims 3, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (JP2003-032343) in view of Ohnsorge as applied to claims 1, 8 above, and further in view of Toyoda et al. (US2002/0160725A1, hereinafter Toyoda).

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The combination differs from claims 3, 9, in that he does not explicitly teach the following: circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface.

However, Toyoda discloses portable telephone which teaches the following: circuit board (3, fig. 1) situated within the housing, the printed circuit board substantially coplanar with the front surface (fig. 1, paragraph: 0049).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface as this arrangement would provide means to accommodate necessary circuitry for portable telephone as shown by Toyoda, thus providing a compact way to accommodate all circuit components for a portable telephone.

4. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Odo in view of Toyoda et al. (US2002/0160725A1, hereinafter Toyoda) and Ohnsorge

Odo differs from claim 14 in that he does not explicitly teach the following: side surface being concave to generally follow a contour of a user's face; a transceiver coupled to the antenna and disposed within the housing, the transceiver configured to transmit and receive RF signal, a mobile power source coupled to the transceiver for supplying power to the transceiver.

However, Ohnsorge teaches the following: surface being concave to generally follow a contour of a user's face (fig. 2 col. 2 lines 7-11); Toyoda teaches the following: a transceiver coupled to the antenna and disposed within the housing, the transceiver

configured to transmit and receive RF signal, a mobile power source coupled to the transceiver for supplying power to the transceiver (fig. 3, paragraphs: 0076-0080).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Odo's system to provide for the following: side surface being concave to generally follow a contour of a user's face as this arrangement would provide necessary shape to ensure good intelligibility of telephone communications as taught by Ohnsorge; a transceiver coupled to the antenna and disposed within the housing, the transceiver configured to transmit and receive RF signal, a mobile power source coupled to the transceiver for supplying power to the transceiver as this arrangement would provide necessary paraphernalia for the portable telephone to carry out communications as shown by Toyoda, thus facilitating voice communication between communication partners.

Oda differs from claim 16 in that he does not explicitly teach the following: circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface.

However, Toyoda discloses portable telephone which teaches the following: circuit board (3, fig. 1) situated within the housing, the printed circuit board substantially coplanar with the front surface (fig. 1, paragraph: 0049).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: circuit board situated within the housing, the printed circuit board substantially coplanar with the front surface as this arrangement would provide means to accommodate necessary circuitry

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for portable telephone as shown by Toyoda, thus providing a compact way to accommodate all circuit components for a portable telephone.

Regarding claims 15, 17-19, Odo teaches the following: first and second openings are defined proximate the second side surface, the speaker (3a, Drawing: 4) situated within the housing to transmit acoustic signals via the first opening, the microphone (7a, Drawing: 4) situated within the housing to receive signals via the second opening, a first dimension defines a width of the front surface and second defines a width of the second side surface, the second dimension being less than the first dimension, keypad (6, Drawing: 4) situated on the front surface, display device (2, Drawing: 4) situated on the front surface (Drawing: 4, (paragraph: 0021, and see abstract).

### ***Response to Arguments***

5. Applicant's arguments filed on 1-17-2006 have been fully considered but they are not persuasive.

Regarding amended independent claims 1, 8, 14, applicant argues that "The applicant submits that the amended independent claims 1, 8, and 14 each include, inter alia, the limitation that a communication device comprise "a housing including ... a second side surface ... being concave to generally follow of a contour of user's face". As stated above ... however, none of the references, alone or in combination, describe or suggest a communication or wireless device having a second side surface being concave to follow the contour of user's face, as recited in the amended independent claims. As acknowledged by the Examiner, the combination of Oda in view of Toyoda

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does not disclose that the second side surface of the device be concave. Rather, the Examiner cites Ohnsorge as disclosing this missing feature and concludes that it would have been obvious to one skilled in the art to modify the portable telephone of Oda to arrive at the Applicant's second side surface being concave because this arrangement would provide the necessary shape to ensure good intelligibility of telephone communications as taught by Ohnsorge" and Applicant further argues that "there is no teaching or suggestion in Oda, Toyoda, or Ohnsorge, which would motivate a person skilled in the art to modify Oda or Toyoda's portable telephone set to have concave side surface". Regarding this, notwithstanding applicant's contention that there is no motivation to modify Oda or Toyoda's portable telephone, one of ordinary skill in the art would be motivated to modify Oda portable telephone set to have concave side surface on which speaker and microphone are located because Ohnsorge teaches a portable telephone having a concave surface on which speaker and microphone are located (fig. 2, col. 2 lines 7-11) so that this concave shape of the side surface of the portable telephone in which microphone and speaker located would result in better intelligibility to the user when using the portable telephone as taught by Ohnsorge (col. 2 lines 7-11).

Applicant further argues about other things about Ohnsorge reference such as liquid crystal display be in direct contact with user's face when the user uses the electrostatic transducers which assertion no way diminishes the teaching of Ohnsorge portable telephone having a concave surface on which microphone and speakers are located to ensure good intelligibility.



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Applicant further argues that "Ohnsorge states that the two sides of housing must be inclined inwards to ensure good intelligibility. However, nothing in Ohnsorge describes or suggests that the side surface, where the speaker and microphone are situated proximate to, must have a concave surface. Ohnsorge merely shows that the front surface of housing 1, but not the its side surface, must be inclined". Regarding this, as can be seen from fig. 2, Ohnsorge teaches the advantage such as good intelligibility in terms of hearing and speaking for user having portable telephone with concave surface on which microphone and speaker is located (fig. 2 col. 2 lines 7-11). So therefore one of ordinary skill in the art at the time invention was made would be motivated modify Odo's system to provide for concave side surface on which microphone and speaker is located by using the teachings of Ohnsorge who teaches the advantage such as good intelligibility in terms of hearing and speaking for user having portable telephone with concave surface on which microphone and speaker is located.

Applicant further argues that "the examiner has not demonstrated a motivation to combine the references to support the obvious rejection". Regarding this, as set forth above, examiner has definitely provided motivation to combine the references such as good intelligibility for user of the portable telephone having its surface concave on which microphone and speaker are located in light of teaching of Ohnsorge who teaches as good intelligibility in terms of hearing and speaking for user having portable telephone with concave surface on which microphone and speaker is located (fig. 2 col. 2 lines 7-11).

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In light of above explanations, rejection of claims 1-19 is maintained as set forth in the office action above.

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melur Ramakrishnaiah  
Primary Examiner  
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